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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/922,263	09/02/1997	ROBERT J. CROWLEY	BSC011	1365

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EXAMINER

SHAY, DAVID M

ART UNIT	PAPER NUMBER
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3739

DATE MAILED: 06/18/2004

44

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/922263

Applicant(s)

Examiner

Group Art Unit

3739

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on March 4, 2004
- ☒ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1, 4-12, 14, 15, 17, 20-30, 32-44, 47, 48, 52, 53 + 60-63 is/are pending in the application.
- Of the above claim(s) 20-30, 32-44, 47, 48, 52, + 53 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1, 4-12, 14, 15, 17, + 60-63 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Applicant's election of the species of Figure 4 without traverse is noted. Regarding Figures 2A, 2B, 7A, and 7B, these figures were regarded to illustrate only two patentably distinct species (i.e. that of Figure 2 (both figures 2A and 2B being one specie) and that of Figure 7 (both Figures 7A and 7B being one specie) for this reason the figures were referred to collectively by their respective numerals in the restriction requirement.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 4-12, 17 and 63 rejected under 35 U.S.C. 103(a) as being unpatentable over Chapelon et al ('526) in combination with Coleman et al, and Putterman et al. Chapelon et al ('526) teach the use of an intracorporeal cavitation device. Coleman et al teach that the occurrence of cavitation can be confirmed by detecting the acoustic and sonoluminescent pulses generated thereby. Putterman et al teach that the threshold for producing cavitations is 20-30 times greater than that for producing sonoluminescence. It would have been obvious to the artisan of ordinary skill to employ the detectors of Coleman et al, in the device of Chapelon et al ('526) since this would confirm the occurrence of cavitations which inherently produces sonoluminescence as taught by Putterman et al thus producing a method such as claimed.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapelon et al ('526) in combination with Coleman et al and Putterman et al as applied to claim 1 above, and further in view of Yock. Yock teaches locating a piezoelectric device by translating it within a catheter. It would have been obvious to the artisan of ordinary skill to adjust the position of the module by translating it within a sheath since this is not critical and will prevent the tissue from moving as the probe is moved, thus producing a method such as claimed.

Claims 15 and 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapelon et al ('526) in combination with Coleman et al and Putterman et al as applied to claims 1 and 4 above, and further in view of Takayama et al. Takayama et al teach the use of an acoustic transducer and a lens to direct the shockwave. It would have been obvious to the artisan of ordinary skill to employ these structures to direct the shockwave, since these are old and well known for this purpose in the art, solve no particular problem, and provide no unexpected result, and to employ a filter since this is a notorious device for reducing exposure to undesirable wavelengths, official notice of which has already been taken, thus producing a method such as claimed.

In applicants previous response, it was argued; regarding claim 1 and its dependents, that the examiner could not rely on Coleman et al, since Coleman et al show an "unpredictability" in producing sonoluminescence and argue that Chapelon et al ('526) "specifically claims that the goal of the invention is to limit or avoid the cavitations effect." The examiner respectfully submits that Chapelon et al ('526) clearly teach (1) an endocavity device (see column 12, lines 39-47) and (2) a treatment device which "supplies two types of ultrasonic waves, the first one being thermal waves that produce a predominantly thermal effect on the tissue being treated and a second one being cavitations waves that produce a predominantly cavitations effect on tissue." (see the Abstract).

To clarify the rejection, and in response to applicants arguments, the examiner has included the Putterman et al reference giving an thorough treatment of sonoluminescence, defining actual and theoretical parameters for the production thereof under various circumstances, and teaching that the production of sonoluminescence is inherent in cavitations,

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since the threshold for sonoluminescence is an order of magnitude smaller than that for cavitations. Thus applicant's unsupported assertions to the contrary are not convincing.

Applicant's arguments with respect to claims 1, 4-12, 14, 15, 17 and 6-63 are have been considered but are moot in view of the new ground(s) of rejection.

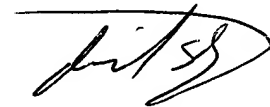
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to David Shay at telephone number 308-2215.

Shay/DI

May 28, 2004



DAVID M. SHAY
PRIMARY EXAMINER
GROUP 330